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24677	7590	12/13/2005	EXAMINER	
ALFRED E. MANN FOUNDATION FOR SCIENTIFIC RESEARCH PO BOX 905 SANTA CLARITA, CA 91380			SAVAGE, JASON L	
			ART UNIT	PAPER NUMBER
			1775	
DATE MAILED: 12/13/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/821,023

Applicant(s)

JIANG ET AL.

Examiner

Jason L. Savage

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 10-3-05.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) 14-30 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 October 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 20050923.

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

***Specification***

The Specification is objected to because:

On page 1, first paragraph, line 3, Applicant recites Application Serial No. 10/714,913; however, upon review it appears Applicant intended to recite Serial No. 10/714,193 which has the recited title and contains similar subject matter to the instant Application. Correction is required. See MPEP § 608.01(b).

The disclosure is objected to because of the following informalities:

With the cancellation of original figures 5 and 6 and renumbering of original figures 7 and 8 to figures 5 and 6 respectively, Applicant has not amended the specification to change and/or remove references to the figures to reflect the changes in the drawings.

On page 1, in the brief description of the drawings Applicant still recites original figures 5 and 6 and has not amended the references to figures 7 and 8 to reflect their new numbers.

On page 4 in the last paragraph up to page 5 in the first full paragraph, detailed descriptions of now original Figures 5 and 6 are provided and likely should be removed now that they have been canceled.

Appropriate correction is required.

***Claim Rejections - 35 USC § 103***

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The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chang et al. (US 6,722,002).

Chang teaches a brazing filler materials comprising laminated foil layers which are suitable for use in bonding metal component parts consisting of Ti, Fe or Ni based alloys (col. 2, ln. 38-45 and col. 5, ln. 41-56). Chang further teaches a brazed component assembly comprising a 316 stainless steel metal part bonded to a composite filler material comprising two outer foil layers of nickel and an inner foil core layer of titanium (col. 6, ln. 52-57). Chang also teaches that titanium metal parts can be bonded to other metal parts by employing the brazing filler material to form a composite assembly (col. 6, ln. 65-67).

Chang does not exemplify an embodiment wherein a component assembly comprises a stainless steel part bonded to a titanium part via a filler layer comprising nickel and titanium foils. However, since Chang teaches bonding a titanium part with the filler comprising nickel and titanium layers (col. 6, ln. 58-64) and further teaches bonding a stainless steel part with a similar filler comprising nickel and titanium layers (col. 6, ln. 52-57); it would have been within the purview of one of ordinary skill in the art to have recognized that one could form a composite wherein a stainless steel part was bonded to a titanium part via the recited filler layer with a reasonable expectation of

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success. Absent a teaching of the criticality or showing of unexpected results from the claimed assembly composite, it does not provide a patentable distinction over the prior art.

Regarding the limitation that the assembly be suitable for use in living tissue, since the assembly of Chang has the same structure and same materials as that claimed by Applicant, it would have been just as suitable for use in living tissue as that claimed by Applicant. Furthermore, the limitation that the assembly is suitable for use in living tissue is merely an intended use. Statements of intended use are not considered patentably distinguishing limitations. See Ex parte Masham 2 U.S.P.Q.2d 1647, 1648. In re Thuau 135 F.2d 344, 47 U.S.P.Q. 324. Application of Hack, 245 F.2d.246, 114 U.S.P.Q. 161.

Regarding claim 2, an assembly comprising the filler having two outer layers of nickel as described by Chang (col. 6, In. 52-57) would meet the claim limitation of a nickel foil layer being adjacent to the titanium part.

Regarding claim 3, the Ni/Ti/Ni filler structure taught by Chang (col. 6, In. 52-57) would meet the claim limitation.

Regarding claim 4, although Chang teaches the preferred placement of Ti layers in the brazing filler is somewhere in the middle layer; Chang clearly teaches that the constituents of the brazing alloys can be arranged in any sequence and that other arrangements other than the preferred arrangement with Ti in the middle may be useful in specific circumstances (col. 5, In. 57-67). As such, it would have been obvious to one of ordinary skill in the art to have arranged the alloy layers in any sequence, including

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sequences wherein the outer layers were Ti wherein the specific arrangement of material layers would be determined by the specific circumstances in which the assembly were to be used. Absent a teaching of the criticality or showing of unexpected results, the claimed sequence of material layers does not provide a patentable distinction over the prior art.

Regarding claim 5, Chang teaches the stainless steel part is a 300 series stainless steel such as 316 (col. 6, ln. 52-57).

Regarding claims 6 and 8, although Chang is silent to the use of 316L stainless steel and Ti-6Al-4V, it would have been within the purview of one of ordinary skill in the art to have recognized that a wide variety of stainless steel and titanium alloys could be employed in the component assembly of Chang with a reasonable expectation of success. Absent a teaching of the criticality or showing of unexpected results from the use of the claimed alloys, they would merely be a design choice and thus do not provide a patentable distinction over the prior art.

Regarding claim 7, Chang teaches the titanium part may be a titanium alloy (col. 6, ln. 58-67).

Regarding claim 9, Chang teaches the filler reacts with and bonds to the metal parts (col. 6, ln. 6-14).

Regarding claim 10, Chang teaches the filler thickness of the nickel and titanium composite filler is typically 0.010 inches thick and that the thickness may be further reduced by cold rolling (col. 6, ln. 52-57). Chang further teaches that the brazing temperature is about 950°C (col. 7, ln. 1-5 and col. 8, ln. 7-19) which is less than the

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melting point of the titanium and stainless steel parts but greater than a melting point of the Ni-Ti eutectic formed from the filler material.

Regarding claims 11-12, the claims are drawn to article, not the method of making. Absent a teaching of the criticality or showing of unexpected results due to forming the filler foil layers by the claimed methods, they would not provide a patentable distinction over the prior art. Furthermore, it would have been obvious to have used nickel and titanium foils formed by any known method for the filler in the assembly of Chang with a reasonable expectation of success.

Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chang et al. (US 6,722,002) in view of Cusano et al. (US 3,994,430).

Chang teaches what is set forth above however it is silent to at least one of the filler layers being formed from metallic particulate. Cusano teaches a method of bonding metals to other metal substrates (col. 2, ln. 32-33). Cusano further teaches that a bonding agent may be used to bond the metal part to the other metal part and that the agent may be in particulate form (col. 3, ln. 20-30). Although it is recognized that Cusano teaches that the bonding is a direct bond wherein no intermediate layer of solder metal or the like is employed, Cusano is merely provided as a teaching that it is known in the art that bonding materials for bonding metal parts can be provided in particulate form. It would have been obvious to one of ordinary skill in the art to have recognized that bonding agents or layers such as the filler layers of Chang could be

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employed in a variety of forms including as layers comprising particulates with a reasonable expectation of success.

It is well settled that the test of obviousness is not whether the features of one reference can be bodily incorporated into the structure of another and proper inquiry should not be limited to the specific structure shown by the references, but should be into the concepts fairly contained therein, and the overriding question to be determined is whether those concepts would suggest to one of ordinary skill in the art the modifications called for by the claims, *In re Van Beckum*, 169 USPQ 47 (CCPA 1971), *In re Bozek*, 163 USPQ 545 (CCPA 1969); *In re Richman*, 165 USPQ 509 (CCPA 1970); *In re Henley*, 112 USPQ 56 (CCPA 1956); *In re Sneed*, 218 USPQ 385 (Fed. Cir. 1983).

In response to the issue whether the reference is nonanalogous art, it has been held that the determination that a reference is from a nonanalogous art is twofold. First, one decides if the reference is within the field of the inventor's endeavor. If it is not, one proceeds to determine whether the reference is reasonably pertinent to the particular problem with which the inventor was involved, *In re Wood*, 202 USPQ 171, 174. In the instant case, both Chang and Cusano are generally drawn to bonding metal parts through the use of bonding assisting agents or materials.

Claims 1-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted prior art in view of Chang et al. (US 6,722,002).



The admitted prior art from claim 30 of the present Application states that it is known to bond a stainless steel part to a titanium part with a filler material in order to form a component assembly for placement in living tissue (Jepson claim 30).

The admitted prior art is silent to the filler material being a composite comprising at least one foil layer of nickel and one foil layer of titanium. Chang teaches that it is beneficial to use composite foils to form a laminate filler to bond metal parts. By using the laminate filler, the desired composition of the brazing alloy which bonds the metal parts together can be formed by simply varying the thicknesses of the foil layers (col. 3, ln. 53-59). Chang further teaches a composite filler material comprising foil layers of nickel and titanium is suitable for use in bonding a component assembly comprising metal parts of stainless steel and titanium (col. 5, ln. 57-67 and col. 6, ln. 44-57).

It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the assembly of the prior art by employing the laminate filler taught by Chang comprising foil layers of nickel and titanium so the alloy chemistry of the bonding filler layer could be readily adjusted by varying the thickness and/or number of layers of each material in the filler laminate.

Regarding claims 2-3, an assembly comprising the laminate filler having two outer layers of nickel as described by Chang (col. 6, ln. 52-57) would meet the claim limitations.

Regarding claim 4, although Chang teaches the preferred placement of Ti layers in the brazing filler is somewhere in the middle layer; Chang clearly teaches that the constituents of the brazing alloys can be arranged in any sequence and that other

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arrangements other than the preferred arrangement with Ti in the middle may be useful in specific circumstances (col. 5, ln. 57-67). As such, it would have been obvious to one of ordinary skill in the art to have arranged the alloy layers in any sequence, including sequences wherein the outer layers were Ti wherein the specific arrangement of material layers would be determined by the specific circumstances in which the assembly were to be used. Absent a teaching of the criticality or showing of unexpected results, the claimed sequence of material layers does not provide a patentable distinction over the prior art.

Regarding claims 5 and 7, the admitted prior art teaches the stainless steel part may be 200, 300 or 400 series stainless steel and that the titanium part may be formed from titanium or titanium alloys (Jepson claim 30).

Regarding claims 6 and 8, although the prior art is silent to the use of 316L stainless steel and Ti-6Al-4V, it would have been within the purview of one of ordinary skill in the art to have recognized that a wide variety of stainless steel and titanium alloys could be employed in the component assembly of the admitted prior art as modified by Chang with a reasonable expectation of success. Absent a teaching of the criticality or showing of unexpected results from the use of the claimed alloys, they would merely be a design choice and thus do not provide a patentable distinction over the prior art.

Regarding claim 9, the admitted prior art teaches a method of bonding the assembly by compressing the assembly and heating it to a temperature above the melting point of the filler material. As such, the filler would react with and bond to the metal parts.

Regarding claim 10, the admitted prior art is silent to the thickness of the filler material. However, Chang teaches the filler thickness of the nickel and titanium composite filler is typically 0.010 inches thick and that the thickness may be further reduced by cold rolling (col. 6, ln. 52-57). It would have been obvious to one of ordinary skill in the art to have used the nickel and titanium composite laminate of Chang having a thickness of 0.010 inches or less in the assembly of the admitted prior art since materials having such a thickness are known to be suitable for use in forming composite assemblies.

Regarding claims 11-12, the claims are drawn to article, not the method of making. Absent a teaching of the criticality or showing of unexpected results due to forming the filler foil layers by the claimed methods, they would not provide a patentable distinction over the prior art. Furthermore, it would have been obvious to have used nickel and titanium foils formed by any known method for the filler in the assembly of the admitted prior art as modified by Chang with a reasonable expectation of success.

Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over admitted the prior art in view of Chang et al. (US 6,722,002) as applied to claims 1-12 above and in further view of Cusano et al. (US 3,994,430).

The prior art teaches what is set forth above however it is silent to at least one of the filler layers being formed from metallic particulate. Cusano teaches a method of bonding metals to other metal substrates (col. 2, ln. 32-33). Cusano further teaches that a bonding agent may be used to bond the metal part to the other metal part and

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that the agent may be in particulate form (col. 3, ln. 20-30). Although it is recognized that Cusano teaches that the bonding is a direct bond wherein no intermediate layer of solder metal or the like is employed, Cusano is merely provided as a teaching that it is known in the art that bonding materials for bonding metal parts can be provided in particulate form. It would have been obvious to one of ordinary skill in the art at the time of the invention to have recognized that bonding agents or layers such as the filler layers in the assembly of the admitted prior art as modified by Chang could be employed in a variety of forms including as layers comprising particulates with a reasonable expectation of success.

### ***Response to Arguments***

Applicant's arguments filed 10-3-05 have been fully considered but they are not persuasive.

#### **Informalities Are Addressed**

Applicant recites on page 2 of the amendment that the Serial No at page 1 has been corrected to recite the correct Serial No. However, no amendment to the specification at page 1 appears to have been submitted with the present amendment. Appropriate correction is still required.

#### **Claim Rejections under 35 USC § 103**

Applicant argues that Chang does not teach how to use the brazing foil or how to make a component assembly.

As was recited in the cited portion of Chang above, it teaches that the composite brazing filler is suitable for joining metal parts such as titanium or iron based alloy parts (col. 5, ln. 41-56). Chang further teaches embodiments wherein two metal parts are joined via the brazing filler to form an assembly having sound braze filler joints (col. 67, ln. 65 – col. 7, ln. 5). As such the assertion that Chang does not teach how to use the brazing foil filler or how to make a component assembly is not persuasive.

Applicant further asserts that Chang does not mention stainless steel at all or it bonding to titanium metal.

However, Chang teaches that a 316 stainless steel part is bonded to the filler material layer (col. 6, ln. 52-57). Although Chang does not exemplify an embodiment wherein a stainless steel part is bonded to a titanium part, Chang teaches that both stainless steel and titanium are suitable for use as the metal parts to be joined by the brazing filler. As was recited in the rejection above, absent a teaching of the criticality of the claimed composite materials, it would not provide a patentable distinction over the prior art.

Applicant also states that Chang does not teach how to make a component assembly that is suitable for use in living tissue. As set forth above, the composite assembly of Chang wherein a stainless steel part is bonded to a titanium part via the composite brazing filler would have been just as suitable for use in living tissue as that claimed by Applicant. Furthermore, the limitation that the assembly is suitable for use in

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living tissue is merely an intended use. Statements of intended use are not considered patentably distinguishing limitations.

Applicant argues in the second to last paragraph on page 2 of the Amendment that Chang does not differentiate between the copper containing brazing foils and nickel containing brazing foils, that Chang does not teach how to choose the preferred brazing material for implantation and that copper is not a biocompatible material and would not be used in an assembly for use in living tissue.

The fact that Chang teaches an embodiment wherein the filler contains copper does not overcome the fact that Chang teaches multiple brazing filler embodiments, one of which is a composite containing nickel and titanium layers wherein the filler is bonded to a stainless steel part (col. 6, ln. 52-57). Chang further teaches bonding the brazing fillers to titanium parts (col. 6, ln. 58-67). Although Change recites a five layer composite is bonded to the titanium part, it also teaches that other variations (emphasis added) of the brazing filler composites can be bonded to the titanium parts (col. 6, ln. 58-60). As such, Chang makes the claimed assembly comprising a filler containing nickel and titanium layers obvious.

Applicant reiterates at the bottom of page 2 of the amendment that Chang is silent to bonding titanium to stainless steel. As was set forth above, absent a teaching of the criticality of the claimed composite materials, it would not provide a patentable distinction over the prior art.

Applicant argues at the top of page 3 that Chang does not teach component assemblies but rather brazing materials citing the thickness of the material layers.

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However, the argument is not commensurate in scope with the claims since none of the claims recite and limitations with respect to the metal part thicknesses. Furthermore, Chang specifically recites the formation of composite assemblies (col. 6, ln. 58-64), coupled with the fact that the composite of Chang contains all of the material layers claimed by Applicant; the argument that composite of Chang would not meet the limitation of an assembly is not persuasive.

Applicant argues in the second paragraph on page 3 that Chang does not teach a titanium metal part being bonded to form a composite assembly. Applicant further states that Chang teaches the formation of a five layer braze foil that contains titanium alloy in the form of a Beta-21 alloy strip. To the contrary, Change teaches that the multilayer braze foils such as a five layer composite foil filler or other variations of the brazing filler can be placed between two sheets of Beta-21 Ti alloys (col. 6, ln. 58-64). These two sheets are clearly distinct from what Chang describes as being part of the brazing filler composite and would meet the limitation of being titanium parts such as claimed by Applicant.

Applicant also argues in the same paragraph that the thin titanium foils have limited structural capabilities and are not assemblies and they are thin. This argument is not commensurate in scope with the claims as no limitations recite the asserted structural capabilities of the composite nor are there any limitations regarding the thickness of the metal parts.

Applicant argues that bonding of stainless steel to titanium by brazing is non-obvious prior to the present invention and that such a composite is not taught by Chang.

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However, as was set forth in the rejection above, it would have been obvious to one of ordinary skill in the art to have formed such a composite assembly with a reasonable expectation of success given that Chang teaches the brazing filler may be used to bond to titanium or stainless steel parts. Absent a teaching of the criticality of the claimed combination, it would not provide a patentable distinction over the prior art.

At the bottom of page 3 Applicant reiterates the argument that Chang does not teach implantable devices, materials or processes that are suitable for such use. As was recited above, suitable for use in living tissue is an intended use that does not patentably distinguish the present invention over the prior art.

Regarding claim 4, Applicant argues that Chang teaches away from the claimed invention since Chang prefers to place Ti somewhere in the middle layer to protect it from scaling and corrosion when the foil is thermally processed. However, Chang clearly teaches that the constituents of the brazing alloys can be arranged in any sequence and that other arrangements other than the preferred arrangement with Ti in the middle may be useful in specific circumstances (col. 5, ln. 57-67). As such, it would have been obvious to one of ordinary skill in the art to have arranged the alloy layers in any sequence, including sequences wherein the outer layers were Ti wherein the specific arrangement of material layers would be determined by the specific circumstances in which the assembly were to be used. Absent a teaching of the criticality or showing of unexpected results, the claimed sequence of material layers does not provide a patentable distinction over the prior art.



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Applicant then recites that Applicant advantageously teaches the preferred embodiment of the outer layers of the composite filler being comprised of nickel and that the selection of nickel is not merely a random choice. Applicant asserts that Chang is silent regarding a preferred orientation with nickel on the outside of the foil layers and Applicants are unaware of how one of ordinary skill in the art could derive the claimed invention based on the teachings of Chang.

As was set forth previously, Chang exemplifies an embodiment wherein the brazing filler composite contains outer layers of nickel with a core layer of titanium, ie Ni/Ti/Ni (col. 6, ln. 44-51). As such Applicants assertion that Chang is silent to such an embodiment and that one of ordinary skill would be unable to derive such an embodiment from the teachings in Chang is not persuasive.

Regarding claim 10, Applicant argues that Chang does not teach a brazing temperature for bonding components together with a brazing foil. However, Chang teaches that the brazing composite filler is positioned between two metal parts and placed in a vacuum furnace for brazing (emphasis added) (col. 6, ln. 58-60). Chang further teaches that after the assembly is heated to about 950°C for about 10 minutes, the resulting braze joint (emphasis added) is shown to be sound between the two metal parts. As such, Applicant's assertion that Chang does not teach a brazing temperature for bonding components together with the brazing foil filler is not persuasive.

Regarding claims 11-12, Applicant reiterates the assertion that Chang does not teach forming an assembly. As was set forth above, this argument is not persuasive. Applicant further argues that Chang does not teach the formation of a brazing foil by a

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process other than roll forming and that it is silent with regard to some of the terms recited in the claims. As was set forth in the rejection above, the claims are drawn to the article, not the method of making. Applicant has not shown how the claimed method limitations would provide a criticality or showing of unexpected results in the product when compared to that of the prior art.

The Rejection of Claim 13 on Chang in view of Cusano

Applicant argues that Cusano merely restates the teaching that it is well known to those skilled in the art to apply the bonding agent/brazing filler metal in the form of foil or in the form of particulate. Applicant argues that the present invention differs from this well known teaching in that it is drawn to discrete layers of nickel and titanium wherein the metal layers are comprised of particles. Applicant further states that Cusano teaches a direct bond and is silent to the claimed bonding system.

However, as was recited in the rejection above, Cusano is not being relied upon to teach the claimed bonding system; it was merely being cited as proof that it is well known to apply brazing filler metals in the form of foil layers or in the form of particulates, which Applicant acknowledged. As such, it would have been obvious to one of ordinary skill in the art to have recognized that the foil brazing filler metal layers of Chang could be provided in alternate forms such as in particulate form with a reasonable expectation of success. Absent a teaching of the criticality or showing of unexpected results from the titanium and nickel layers being formed from particulates, it would not provide a patentable distinction over the prior art.

Chang and Cusano Do Not Contain Any Justification to Support their  
Combination, Much Less in the Manner Proposed

Applicant argues that the prior art references should not be combined in the manner proposed since there is no suggestion they be combined within the references. As was recited in the rejection above, Cusano was merely being provided as a teaching that it is well known in the art that brazing filler materials can be provided in foil or particulate form. Applicant admits that this concept is well known to those skilled in the art. In light of the teaching of Cusano and Applicant's admission this is well known to one of ordinary skill in the art, the substitution of one material type for another would have been an obvious modification. Absent a teaching of the criticality of the brazing filler layers being in particulate form, the limitation would not provide a patentable distinction over the prior art.

The Rejection of Claims 1-12 on Jiang ("Admitted Prior Art") in view of Chang

Applicant argues that the present invention provides improvements to the known, unsatisfactory bonding practices of joining stainless steel and titanium components for use in living tissue. While the present invention may provide improvements on what Applicant views to be prior art, Applicant did not address the fact that Chang was provided as a modification to the known practice of joining stainless steel and titanium components for use in living tissue. As such, the assertion that the rejection to the claims over of Jiang in view of Chang is overcome is not persuasive since Applicant has

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neglected to provide any basis for why the present invention would overcome the admitted prior art structure as modified by Chang.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason L. Savage whose telephone number is 571-272-1542. The examiner can normally be reached on M-F 6:30-4:00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Deborah Jones can be reached on 571-272-1535. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jason Savage  
12-4-05

  
DEBORAH JONES  
SUPERVISORY PATENT EXAMINER